# **CORSAIR UNIT AGREEMENT**

State of Alaska
Department of Natural Resources
Commissioner's Findings and Decision
Corsair Unit Expansion Application
Appeal of Director's Decision

DECEMBER 3, 2008

# **TABLE OF CONTENTS**

1.	11N-1 IV	INTRODUCTION		
II	DEC	DECISION SUMMARY Page 3		
III.	BAC	BACKGROUND Page 3		
IV.	DISCUSSION of DECISION CRITERIA Pa			Pages 6-13
	А.	<ol> <li>The Environmental Costs and Benefits of Unitized Endevelopment</li> <li>The Geological and Engineering Characteristics of Expansion Area and Prior Exploration Activities in the Plans for Exploration or Development for the Particip Areas</li> <li>The Economic Costs and Benefits to the State</li> <li>Other Relevant Factors</li> </ol>		of the Proposed in the Unit Area icipating
		1. 2. 3.	Promote the Conservation of All Natural Resource The Prevention of Economic and Physical Waste The Protection of All Parties of Interest, Including	
V. FINDINGS AND DECISION Page 12				Page 12
VI. APPEAL Page 1				Page 13

### I. INTRODUCTION

Pacific Energy Resources Limited (PERL), the Corsair Unit (Unit) operator, filed an application for the First Expansion of the Corsair Unit (Application) with the State of Alaska Department of Natural Resources (DNR), Division of Oil and Gas (Division), on March 26, 2008. On April 30, 2008, the Division Director denied the Application (Decision). On May 16, 2008, PERL appealed the Decision to the DNR Commissioner.

PERL asserts, among other things, that approval of the Application best serves the State's and public's interest, as well as PERL's, by preserving its ability to explore and develop the entire Unit structure as the sole working interest owner, and that "fragmentation of the Corsair structure into unitized and non-unitized parcels with different working interest owners would ultimately result in a waste of both economical and physical resources." PERL also maintains that approval of the Application and the proposed Expansion Plan of Exploration (POE) would result in the leases being drilled sooner than on a lease-by-lease basis. Finally, PERL asserts throughout its appeal that without the expansion leases, delivering a jack-up drilling rig to Cook Inlet, as required under the Unit's Initial POE, as amended, would be uneconomic.

#### II. SUMMARY OF DECISION

I affirm the Decision denying the Application as not in the public interest because it does not promote 1) the conservation of natural resources and 2) the prevention of economic and physical waste any more than non-unitized development of the individual leases, and 3) does not provide for the protection of all parties of interest, including the State. 11 AAC 83.303.

PERL submitted the Application just 42 days before the leases would expire, proposing expansion of the Unit as an oil play and delays to the existing work commitments. PERL states that it had not fully assessed the economic feasibility of the work commitments it agreed to when it assumed and accepted designation as Successor Unit Operator. The State's interest is not served by the unitization of soon-to-expire acreage, especially when an operator has not fulfilled its existing POE work commitments. DNR must be able to rely on commitments made by unit operators. When it assumed Unit operatorship, PERL committed to submit a jack-up rig contract to DNR by December 31, 2007, and bring a jack-up rig to Cook Inlet to drill for gas in the Unit by December 31, 2008. PERL defaulted on its rig contract deadline commitment and DNR has already extended the drilling deadline to June 30, 2009. Now, as part of the Application, PERL seeks to further delay well drilling in the Unit until December 31, 2009.

### III. BACKGROUND

The Unit, formed effective January 31, 2007, is located in the center of upper Cook Inlet, approximately 12 miles southwest of North Cook Inlet Field. The existing Unit area covers approximately 10,185 acres including four State of Alaska oil and gas leases. The Unit's Initial five-year POE required Forest Oil Corporation (Forest), the original Unit

Operator, to, among other things, 1) provide a drilling rig commitment by December 31, 2007, 2) drill an exploration well by December 31, 2008, 3) seek participating area approval before January 31, 2010, 4) consider drilling a second exploration well before January 31, 2011, and 5) seek plan of operation approvals for pipeline and facilities construction, before January 31, 2012, to permit commercial gas production from the Unit.

On August 27, 2007, PERL acquired 100 percent of the working interest in the Unit leases from Forest. On November 6, 2007, the Division approved the assignment of Forest's lease interests PERL. On November 14, 2007, Forest resigned and designated PERL as Successor Unit Operator. On November 26, 2007, PERL "accept[ed] and assume[d] all rights and obligations as Successor Unit Operator . . . ." The Division approved PERL as Unit Operator on December 19, 2007.

On December 4, 2007, before the Division approved PERL as Unit Operator, PERL requested that the Division delay all the Initial POE commitments by one year, so that, for example, the drilling rig and initial exploration well commitments would be delayed to December 31, 2008, and December 31, 2009, respectively. These initial requests to delay were denied because PERL was aware of these obligations when they acquired this asset and committed to DNR that they would be able to meet the existing deadlines when they asked the Division to approve the assignments and accepted Successor Operatorship of the Corsair Unit.

PERL failed to fulfill the December 31, 2007, commitment to provide evidence satisfactory to the Commissioner of a rig contract that would enable PERL to meet the December 31, 2008, well drilling requirement set out in the Initial POE. Thus, on December 31, 2007, the Director defaulted the Unit and demanded, as a cure, that PERL provide evidence of a rig contract by April 1, 2008.

On January 4, 2008, PERL again requested that the Division delay the initial well drilling commitment by one year—until December 31, 2009.

On January 29, 2008, the Division extended the well drilling commitment by six months—until June 30, 2009, subject to PERL curing the drilling rig commitment by April 1, 2008, as set out in its December 31, 2007, default decision. PERL submitted a rig contract on March 14, 2008, thereby curing the default.

PERL filed the Application with DNR on March 26, 2008. It proposed an expansion of the Unit to include four additional State oil and gas leases, ADLs 389513, 389514, 389507, due to expire on April 30, 2008, and 389923 due to expire on December 31, 2008. The proposed expansion would add approximately 16,546 acres to the Unit. PERL holds 100 percent of the working interest in the existing Unit leases, as well as the leases proposed for expansion. The Application included a revised Plan of Exploration (Expansion POE), Exhibit G to the Corsair Unit Agreement (UA). In the Expansion POE

PERL proposed to drill three wells by December 31, 2009, and retain the other work commitments as set out in the Initial POE.

On April 1, 2008, the Division approved a rig contract submitted by PERL on the condition that, among other things, it provide a copy of a signed heavy lift vessel contract to the Division by July 31, 2008.

On April 30, 2008, the Division issued the Decision, which denied the expansion based on the following points.

- 1. No drilling had occurred within the primary term of the proposed expansion leases.
- 2. PERL will neither fulfill the Initial POE drilling work commitment by December 31, 2008, nor has it yet fulfilled the June 30, 2009, drilling commitment.
- 3. Unitization is meant to facilitate efficient reservoir production, not to enable warehousing of acreage. The proposed Unit expansion will not guarantee delineation and production of the identified oil prospect sooner than lease-by-lease development.
- 4. Unitization is not necessary to promote the development of a single resource by multiple working interest owners, because there is only one working interest owner, PERL, in the Unit and the proposed expanded Unit.
- 5. The Expansion POE would extend the Initial POE, as amended, June 30, 2009, drilling date until December 31, 2009. This is an unacceptable delay in drilling the Unit's prospects.

The Appeal, submitted on May 16, 2008, included supplemental confidential geophysical, geological, and engineering data. PERL did not request an extension for the submission of additional material and it did not request a stay of the Decision under 11 AAC 02.030(f). Despite the fact that it had submitted an acceptable drilling rig contract on March 14, 2008, which cured the Unit default, PERL now asserts throughout the Appeal that it would be uneconomic to deliver a jack-up rig to Cook Inlet and drill an exploration well in the Unit without the expansion leases.

On July 8, 2008, PERL requested, among other things, that the Division delay the July 31, 2008, heavy lift vessel contract deadline for sixty days.

On July 22, 2008, PERL clarified that it was seeking the heavy lift vessel contract deadline delay for the "existing" Unit leases.

On July 30, 2008, the Division approved, among other things, PERL's request to delay the heavy lift vessel contract deadline by sixty days. The Division approved the request because the delay would not, in its estimation, delay the June 30, 2009, drilling date deadline set out in the Initial POE, as amended. The Division also opined that it "interprets PERL's vessel contract extension request as a repudiation of its appeal argument that delivering a rig is uneconomic with the expansion leases." The Division observed that PERL provided no evidence for its assertion that the rig delivery would be uneconomic without the expansion leases.

On September 24, 2008, PERL requested a further delay, until October 31, 2008, of the heavy lift vessel contract deadline. The Division again approved extension of the heavy lift vessel contract deadline, until October 31, 2008.

On October 31, 2008, PERL submitted a heavy lift vessel contract. The Division did not accept the contract as a fulfillment of the work commitment and effective December 1, 2008, placed the Corsair Unit in default with a default cure period of ninety days.

#### IV. DISCUSSION of DECISION CRITERIA

The Appeal's title indicates that PERL seeks to both appeal and request reconsideration of the Decision. But, the text of the submittal refers to an appeal. Under 11 AAC 02.010(g) a person may not both appeal and request reconsideration of a decision. 11 AAC 02.010(e) applies here because the Commissioner did not sign or cosign the Decision. In a June 16, 2008, letter, DNR acknowledged acceptance of the Appeal.

AS 38.05.020(b)(4), AS 38.05.180(p), and Article 13.1 of the UA give the DNR Commissioner broad authority to consider an oil and gas unit expansion. See Exxon Corporation v. State of Alaska, 40 P.3d 786 (Alaska 2001).

I review unit expansion applications under the criteria set out in 11 AAC 83.303 (a) and (b). As set out below, I affirm the Decision denying the Application as not in the public interest because it does not promote 1) the conservation of natural resources and 2) the prevention of economic and physical waste any more than non-unitized development of the individual leases, and 3) does not provide for the protection of all parties of interest, including the State. My discussion of the subsection (b) criteria, as they apply to the Appeal, is set out directly below, followed by a discussion of the subsection (a) criteria.

## A. Decision Criteria considered under 11 AAC 83.303(b)

### 1. The Environmental Costs and Benefits of the Expansion

Unitization is not required to drill wells, produce hydrocarbons and build infrastructure. Lease terms may be extended by production without unitization. Unitization may lessen environmental risks by reducing redundant facilities because it often unites multiple owners of a common resource and promotes the sharing of the cost and ownership of drill

rigs, facilities, and infrastructure, thereby reducing the environmental impact of redundant facilities.

PERL has proposed expanding the Unit, which was formed as a gas prospect, to include an oil prospect and to shift the primary target from gas to oil. In this case, PERL holds 100 percent of the working interest in the prospect that it now describes as an oil prospect underlying the Unit and the four leases proposed for expansion.

Expansion would probably not create an additional environmental risk because PERL would be the sole Operator on the prospect. Without approval, the proposed expansion leases expire and another lessee could obtain the acreage at the next lease sale. This would result in multiple owners of the oil prospect described by PERL. The cost of a drill rig would most likely be shared by parties interested in using it; unitization is not required for multiple owners to contract to share costs for exploring acreage. It is highly unlikely that lessees would bring multiple rigs to Cook Inlet because the redundant expense would not be in their financial interest.

# 2. The Geological and Engineering Characteristics of the Reservoir and Prior Exploration Activities of the Corsair Unit Area

### **Corsair Expansion Prospect**

The January 31, 2007 approval of the formation of the Corsair Unit provides an in depth discussion of the Corsair prospect as does the Decision. Both decisions reference prior exploration activities in the area, mostly focused on the work by ARCO which referred to the greater geologic trend called Sunfish of which the Corsair prospect is a part. In considering the Corsair Unit Expansion application, DNR summarized the Corsair Unit prospects:

The Corsair Unit as currently configured contains two types of hydrocarbon prospects. The primary target consists of Sterling and Beluga gas sands; a secondary target is the deeper Tyonek oil sands. In the acreage under consideration for expansion (both northern and southern leases) only a single hydrocarbon target is viable, the Tyonek oil sands. Maps provided by PERL show the expansion acreage underlain by oil-bearing sandstones of the Tyonek Formation. The gas cap located in the crestal region of the anticline is absent in both the northern and southern expansion acreage.

The existing unit overlies the crest of a geologic structure closed at all levels of economic interest. This is commonly referred to as the SRS structure. The expansion area is restricted to the SRS structure and adds acreage structurally low to the existing unit. A saddle exists between this structure and the North Cook Inlet structure to the northeast. Five wells have been drilled on the SRS structure by various operators from 1962 to 1993. These wells had numerous oil and gas shows throughout the Kenai Group as well as drill stem tests which recovered both oil and gas.

Under 11 AAC 83.306 (4) the applicant must provide the following in order for the division to deem an application complete:

(4) all pertinent geological, geophysical, engineering, and well data, and interpretations of those data, directly supporting the application;

The commissioner must consider the geological and engineering characteristics of the potential hydrocarbon accumulation or reservoir proposed for unitization, 11 AAC 83.303 9b) (2). The Division deemed the Application complete effective March 26, 2008.

### Under 11 AAC 83.395. Definitions:

(5) "potential hydrocarbon accumulation" means any structural or stratigraphic entrapping mechanism which has been reasonably defined and delineated through geophysical, geological, or other means and which contains one or more intervals, zones, strata, or formations having the necessary physical characteristics to accumulate and prevent the escape of oil and gas;

The geological and geophysical data provided with the application, although complete, do not support the structural mapping on which the extent of the potential hydrocarbon accumulation is based. Therefore the proposed hydrocarbon accumulation has not been reasonably defined or delineated and does not justify expansion of the Corsair Unit.

## 3. Plan of Exploration and Development for the Proposed Expanded Corsair Unit

The Initial POE, as amended on January 29, April 1, and July 30, 2008, requires PERL to, among other things, submit a heavy lift vessel contract by September 29, 2008, deliver a jack-up rig, and drill an exploration well in Cook Inlet by June 30, 2009. This well drilling date represents a Division-approved six-month extension to the Initial POE, which required drilling by December 31, 2008. Under the Expansion POE, PERL sought a further six-month delay to the well drilling commitment until December 31, 2009. In its Appeal, PERL asserts that it is not requesting an extension of the June 30, 2009, date for the initial exploration well, but the language of the Expansion POE belies that assertion—"[b]y December 31, 2009, the Unit Operator will drill three (3) Exploration wells . . . ."

The State approved the Unit because Forest committed to deliver a jack-up drill rig to Cook Inlet and drill a well on a natural gas prospect in less than two years from the effective date of unitization. The potential benefits the State would reap from the delivery of a jack-up to Cook Inlet outweighed the risk that the operator would fail to develop the leases because of known geologic and economic risks. The Initial POE committed Forest and PERL, when it "accept[ed] and assume[d] all rights and obligations as Successor Unit Operator . . . " on November 26, 2007, to drill by December 31, 2008, or the Unit would automatically terminate and all the leases would return to the State. Thus, the acreage, upon Unit termination, would immediately return

to the State effective January 1, 2009, well within the required time for the acreage to be listed as available in the May 2009 Cook Inlet Sale (May 2009 Sale).

The expiration date of three of the four Unit leases was April 30, 2007. If the leases had expired, rather than being extended by unitization, they would not have been available in time to be listed in the May 2007 Cook Inlet Sale, but they would have been listed in the May 2008 Cook Inlet Sale (May 2008 Sale). By approving the Unit, and extending the lease terms, the State missed the opportunity to receive bids on the leases in the May 2008 Sale, but exchanged the value of those bids for bid deferment payments set out in the Initial POE. If the Operator failed to fulfill the commitments in the Initial POE, the unit would terminate and the operator would pay a penalty per acre of expired acreage.

When PERL accepted and assumed the rights and obligations of Successor Unit Operator, it committed to fulfill the duties and obligations in the UA and the Initial POE, which contained the commitments Forest promised to uphold in exchange for the DNR approval of the Unit.

In the Expansion POE, PERL again proposes a well drilling date one year later than set out in the Initial POE, but also commits to drilling more wells and to pursue oil as a primary target instead of gas. The establishment and repeated fulfillment of work commitments by operators, as set out in POEs, establishes credibility. The Division has approved one six-month extension of the drilling date, as well as extensions of the drilling rig contract and heavy lift vessel contract deadlines. PERL now proposes yet another extension to drill for oil, not gas. PERL's commitment to drill more wells and pursue the structure's oil prospect lacks credibility based on its non-performance of existing commitments.

#### 4. The Economic Costs and Benefits to the State and Other Relevant Factors

PERL filed an Application to expand the Unit to include leases that were not drilled during their primary terms just before they were due to expire, and seeks to further delay commitments that it accepted and assumed in the Initial POE.

The opportunity to promote exploration for gas reserves in Cook Inlet in a short time frame with a jack-up rig, which could be used in other parts of the Inlet, was valuable to the State when it approved the Unit. Having a jack-up brought to Cook Inlet was the benefit the State bargained for when it approved the Unit. The utilities serving Southcentral Alaska have not been able to contract for the supplies they need prospectively. Discovery and development of additional natural gas reserves soon provides enormous benefits and security to the residential, utility, and industrial users of natural gas in the region. PERL's Expansion POE would alter and further postpone realizing those benefits by targeting oil in addition to gas in the structure and delaying the Initial POE well drilling commitment.

PERL maintains that the optimal development path of the Corsair structure, as they describe it, is by a single owner, PERL, performing drilling and evaluation of well results

to determine the best location of the next well. PERL maintains that the optimal manner in which to test the Corsair structure, as PERL has mapped and described it, is for a single owner, PERL, to drill and evaluate the exploration prospect.

DNR is charged with, among other things, maximizing competition among parties seeking to explore and develop the resources; AS 38.05.180(a)(1)(B). Allowing PERL to retain non-producing acreage beyond its primary term, through unitization, decreases competition to explore for and develop the resource. The proposed expansion leases, without unitization, will expire and be available at the May 2009 Sale allowing for maximization of competition for the right to explore within primary term and develop the leases.

Although failure to fulfill the Initial POE, as amended, as well as the proposed Expansion POE, would result in bid deferment payments to the State, these payments are not intended to be used as a substitute for the sale process and further extension of lease terms and work commitments.

## B. Decision Criteria considered under 11 AAC 83.303(a)

# 1. Promote the conservation of all natural resources and the prevention of economic and physical Waste

PERL asserts that "[t]he fragmentation of the Corsair structure into unitized and non-unitized parcels with different working interest owners would ultimately result in waste of both economical and physical resources." Appeal at p. 2. PERL expands on this point arguing that 1) without the jack-up rig in Cook Inlet no leases or units will be explored and produced in Cook Inlet, and 2) re-leasing the acreage would lead to "redundancy in facilities, operations and expenditures that would result in economic waste . . . . and physical waste."

Waste is generally defined as the ultimate loss of oil or gas. Conservation is generally the prevention of physical and economic waste.

PERL argues that expansion would conserve whatever oil and gas there is under the existing Unit and expansion leases more than re-leasing the acreage because there would be one set of facilities rather than two. This argument is unreasonable. First, it totally discounts the chance that PERL may get the leases in the next lease sale. PERL's arguments on this point are too speculative—it could get the leases back in the next lease sale or parties could share the cost of a jack-up rig, as PERL implies, to drill multiple reservoirs. Given the history here, the likelihood of redundant facilities is remote. Second, PERL argues, on the one hand, that if I deny expansion it will not deliver a jack-up rig and "no" units or leases will be produced in Cook Inlet, and on the other hand, releasing will lead to redundant facilities. Under PERL's theory, if it does not deliver a jack-up rig to Cook Inlet, there will be no additional Cook Inlet exploration and production; if there is no additional exploration, there cannot be any redundant facilities.

Third, redundant facilities may have environmental consequences, but do not necessarily lead to the ultimate loss of oil and gas.

Whether PERL re-leases the acreage or not, the cost of a jack-up drill rig will most likely be shared by parties interested in using it; unitization is not required for multiple owners to contract to share costs for exploring acreage. It would be highly unlikely that lessees would deliver multiple jack-up rigs to Cook Inlet because of the excessive expense.

I agree that without a jack-up rig in Cook Inlet, which PERL committed to deliver when it assumed and accepted its duties as Successor Unit Operator, neither the Unit nor other offshore leases in the area will be explored and produced. It is my desire that PERL fulfill its commitments to deliver a rig and a drill wells in the Unit. If PERL does not fulfill its commitments, the State will endeavor to find another lessee who will deliver a rig for use in Cook Inlet.

DNR questions the validity of any economic conclusions regarding the feasibility of pursuing the oil or gas prospect because PERL has not obtained or submitted enough data to make those conclusions. PERL first asserted that the project economics without the expansion were untenable, then asserted on July 22, 2008 that the project economics were sufficient without the expansion leases. Without additional data from a well drilled on the structure that PERL describes, DNR cannot determine conclusively whether there is resource to conserve. PERL has not obtained or submitted enough data for the DNR to concur that the structure underlies one third, all, or none of its leases.

## 2. Provide for the protection of all parties of interest, including the State.

The Unit formation was in the State's interest because it was based upon the Operator's (then Forest) commitment to bring a jack-up to Cook Inlet. Forest made this promise based on a gas play underlying the four Corsair leases. DNR approved the Unit, even though the leases had not been drilled during the primary term, because the operator promised to deliver a jack-up rig to Cook Inlet and drill a well less than two years from lease expiration.

PERL assumed Unit operatorship on November 26, 2007, which the Division approved on December 19, 2007. That approval obligated PERL to fulfill the duties and obligations set out in the Initial POE. That plan contained the commitments Forest had promised in exchange for the DNR approval of the Unit.

PERL submitted the Application 42 days before three of the four proposed expansion leases were due to expire. Unless the leases were included in a unit by April 30, 2008, they would return to the state under their terms. An application to expand (or form) a unit requires a 30-day public notice period, which must commence within ten days of the application being deemed complete for consideration. 11 AAC 83.311. Generally, the Division recommends a lead time of at least 100 days before lease expiration to consider a unit application.

The Application proposed, yet again, delaying the deadline for drilling a well in the Unit. PERL proposed an oil prospect underlying the expansion leases that had only been mapped the week before, according to PERL. PERL stated that "without the expansion leases, the prospect is uneconomical and PERL will not be able to justify the delivery of a jack-up drilling rig to the Cook Inlet." I agree with the Division that PERL repudiated this argument when it sought a two-month delay in the heavy lift vessel contract deadline. I, too, expect PERL to deliver a jack-up rig to the Unit in time to drill a well by June 30, 2009.

It is not in the State's interest to renegotiate a commitment and extend additional lease primary terms through unitization when no work was completed by any lessee during the lease primary terms. PERL appears to have not fully and seriously considered the commitment it assumed when it purchased Forest's working interests in Cook Inlet, accepted Forest's assignment of Successor Operator and received DNR's approval as Successor Unit Operator. It is the Operator who must prudently consider and weigh commitments before making them; it is not in the States' interest to accommodate late planning.

If the State were to approve the expansion, DNR would effectively provide PERL an advantage other nearby leaseholders do not have. The lessee must make a significant commitment of resources towards development of leases before the Division will agree to a unit expansion. Otherwise, the lessee is using the unitization process as a tool to avoid lease expiration and hold acreage out of a lease sale.

Although PERL may benefit from the extension of its lease beyond its primary term there are no additional benefits to the State. Unit expansion will not guarantee delineation and production of the prospect sooner than lease-by-lease development by any lessee. No drilling has occurred within the primary term of the proposed expansion leases. Approval of the Unit yielded a potential benefit to the State--jack-up rig delivery and a well within two years--although no wells had been drilled in the primary term.

PERL now seeks to further delay that the well drilling date without any guarantee to the State that it will fulfill this its commitment. Alternatively, the State's interest is protected by strictly enforcing the obligations under the Initial POE, as amended, with the drill date of June 30, 2009. Failure to fulfill the commitment may result in Unit termination, lease expiration, and acreage available for competitive bidding.

#### V. FINDINGS AND DECISION

- 1. No drilling or production has occurred within the primary term of the proposed expansion leases. PERL has yet to fulfill its paramount POE commitments—to deliver a rig to the Cook Inlet and drill a well by June 30, 2009.
- 2. PERL has not presented conclusive geological, geophysical, engineering or economic data to support its conclusions that the Corsair structure underlies the expansion

leases and that without those leases, pursued as an oil play, the economics of rig delivery are infeasible.

- 3. Unitization is meant to facilitate efficient reservoir production, not to enable lessees of soon-to-expire leases to propose more preferable work commitments.
- 4. Unitization is not necessary to allow multiple owners of leases to form contractual arrangements that provide for the sharing of costs.
- 5. I affirm the April 30, 2008, Director's Decision.

#### VI. APPEAL

This is a final administrative order and decision of the DNR for purposes of an appeal to Superior Court. An appellant affected by this final order and decision may appeal to Superior Court within 30 days in accordance with the rules of the court, and to the extent permitted by applicable law.

Thomas E. Irwin

Commissioner

Date

12/03/08